PATENT ABSTRACTS OF JAPAN

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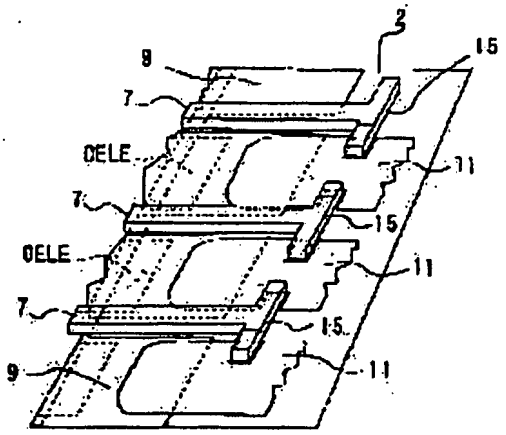
(54) ORGANIC ELECTROLUMINESCECE DISPLAY PANEL AND ITS MANUFACTURING METHOD

(57)Abstract:
PROBLEM TO BE SOLVED: To provide an organic EL display panel of high reliability.
SOLUTION: The organic electroluminescence display panel having image display arrangement area made of plural luminous portions comprises a substrate on which surface plural first display electrodes corresponding to the luminous portion are formed, plural barrier ribs of electric insulation protruding to the substrate which expose at least a part of the first display electrodes, a film of at least one layer of electroluminescence media which is formed respectively on each part of the exposed first display electrodes, plural second display electrodes which are formed respectively on the film of organic electroluminescence media between the barrier ribs, and plural electrically conductive wire membranes which are respectively formed on the second display electrodes and extend to the outside of the image display arrangement area from the barrier ribs. The barrier ribs comprise a barrier rib edge portion which extends to the outside of the image display arrangement area and has a width larger than the width of the barrier rib to the direction nearly perpendicular to the extending direction of the barrier rib.



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[Claim(s)]
[Claim 1] The substrate with which two or more 1st display electrodes which are the organic electroluminescence display panels which have the image display array area which consists of two or more light-emitting parts, and correspond to said light-emitting part on a front face were formed, The septum of two or more electric insulation which projects on said substrate to which said some of 1st display electrodes are made to expose at least, The thin film of the organic electroluminescence medium of at least one layer of the part of said exposed 1st display electrode formed upwards respectively, Two or more 2nd display electrodes with which each was formed on the thin film of said organic electroluminescence medium between said septa, two or more conducting wire layers which each is formed on said 2nd display electrode, and elongates from between said septa to the exterior of said image display array area -- since -- said septum The organic electroluminescence display panel characterized by having the septum edge which has the width of face which consists of width of face of said septum in the direction which develops to the exterior of said image display array area, and carries out an abbreviation rectangular cross to the expanding direction of said septum size.
[Claim 2] Said septum edge is an organic electroluminescence display panel according to claim 1 characterized by having the half width of an equal distance toward both sides from the center line of the extension direction of said septum.
[Claim 3] Said septum edge is an organic electroluminescence display panel according to claim 1 characterized by having the half width of distance which is different toward both sides from the center line of the extension direction of said septum.
[Claim 4] The distance from which said adjoining septum edge differs from said 2nd display electrode is an organic electroluminescence display panel according to claim 1 characterized by being got used and formed.
[Claim 5] Said septum edge is an organic electroluminescence display panel according to claim 1 characterized by having the 2nd piece part which has the becoming width of face size from the width of face of said septum.
[Claim 6] The organic electroluminescence display panel according to claim 1 characterized by having the bus line which works as said some of formed 2nd display electrodes so that it may connect with said 2nd display electrode between said septa.
[Claim 7] Said 1st display electrode and the 2nd display electrode are the organic electroluminescence display panel of any 1 publication of claims 1-6 characterized by being arranged in the location which is the electrode of the shape of two or more stripe, and intersects perpendicularly mutually.
[Claim 8] Said septum is the organic electroluminescence display panel of any 1 publication of claims 1-7 characterized by having the over hang which projects in the parallel direction in said substrate in the upper part.
[Claim 9] The organic electroluminescence display panel of any 1 publication of claims 1-8 characterized by said substrate and said 1st display electrode being transparent.
[Claim 10] The organic electroluminescence display panel of any 1 publication of claims 1-8 characterized by said 2nd display electrode being transparent.
[Claim 11] Are the manufacture approach of an organic electroluminescence display panel of having the image display array area which consists of two or more light-emitting parts, and it sets on a substrate. In the process which forms two or more 1st display electrodes corresponding to said light-emitting part, and said substrate top The process which forms the septum of two or more electric insulation which is made to expose said some of 1st display electrodes at least, and projects, The process of the part of said exposed 1st display electrode which forms the thin film of the organic electroluminescence medium of at least one layer upwards respectively, In the process which forms two or more 2nd display electrodes on the thin film of said organic electroluminescence medium between said septa, and said 2nd display electrode top In the process which forms said septum the process which forms the conducting wire layer elongated from between said septa to the exterior of said image display array area -- since -- The manufacture approach of the organic electroluminescence display panel characterized by forming the septum edge of said septum which has the width of face which consists of width of face of said septum in the direction which develops outside said image display array area, and carries out an abbreviation rectangular cross to the expanding direction of said septum size.
[Claim 12] The thin film of the 1st display electrode with which the laminating of each was carried out

to order on the substrate, and the organic electroluminescence medium of at least one layer, and at least two organic electroluminescent elements which consist of the 2nd display electrodes, The septum of the electric insulation which passes through between said adjoining organic electroluminescent elements, and is elongated and formed, and projects on said substrate, and separates these, At least two conducting wire layers which each carries out abbreviation parallel in the expanding direction of said septum, is formed on said 2nd display electrode, and elongates to the exterior of said organic electroluminescent element, It is preparation ****** electroluminescence equipment. Said septum Organic electroluminescence equipment characterized by having the edge of the configuration which makes said adjoining 2nd display electrode disconnect from said conducting wire layer when said conducting wire layer produces a location gap to an abbreviation perpendicular direction to the expanding direction of said septum.

[Translation done.]

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to the organic electroluminescence display panel especially formed on the substrate as two or more organic EL devices are also for a predetermined pattern, and its manufacture approach about the organic EL device equipped with the luminous layer (henceforth an organic luminous layer) which consists of a thin film of the organic compound ingredient which presents the electroluminescence (henceforth EL) which emits light by impregnation of a current.
[0002]
[Description of the Prior Art] On a transparence substrate, the laminating of the transparent electrode of an anode plate, an organic electroluminescence medium, and the metal electrode of cathode is carried out one by one, and an organic EL device is constituted. For example, organic electroluminescence media are the medium of the medium of the three-tiered structure of the monolayer of an organic luminous layer or an organic electron hole transporting bed, an organic luminous layer, and an organic electronic transporting bed or an organic electron hole transporting bed, and organic luminous layer two-layer structure, a medium of the layered product which inserted the electron or the impregnation layer of an electron hole among these suitable layers further, etc.
[0003] An organic electroluminescence display panel is formed on a substrate as two or more organic EL devices are also for a predetermined pattern, and it is obtained. For example, there are some which are indicated by JP,9-102393,A as this matrix display panel. This full color display is luminescence equipment which has the image display array which consists of a luminescence pixel of two or more organic EL devices arranged in a crossing row and column. For example, the laminating of the line electrode containing a transparent electrode layer, an organic electroluminescence medium, and the train electrode containing the metal-electrode layer which intersects a line electrode is carried out one by one, and a matrix display type thing is constituted. The line electrode is arranged so that predetermined spacing may be set and it may become parallel mutually, and its same is said of a train electrode while each is formed in band-like. Thus, the matrix display type display panel has the image display array which consists of a luminescence pixel of two or more organic EL devices formed in the crossing of the electrode of two or more row and columns.
[0004]
[Problem(s) to be Solved by the Invention] In this conventional display panel, as shown in drawing 1, separation formation of the metal electrode 9 of cathode is carried out by the septum 7. A conducting wire layer 11 may be formed on the metal electrode 9 of cathode, respectively for the drawer to the reduction in resistance or the exterior of the whole electrode so that it may be illustrated.
[0005] As shown in drawing 2, in the production process of a display panel, it may shift in the direction as for which the pattern of a conducting wire layer 11 carries out an abbreviation rectangular cross with cathode from the metal electrode 9 of cathode. Then, a conducting wire layer 11 will be formed ranging over a septum 7. The short circuit of cathode 9 comrades which adjoin by one conducting wire layer 11 in such the condition is generating ****. This invention is made that such a problem should be solved and the object of this invention is to offer a reliable organic electroluminescence display panel.
[0006]
[Means for Solving the Problem] The organic electroluminescence display panel of this invention The substrate with which two or more 1st display electrodes which are the organic electroluminescence display panels which have the image display array area which consists of two or more light-emitting parts, and correspond to said light-emitting part on a front face were formed, The septum of two or more electric insulation which projects on said substrate to which said some of 1st display electrodes are made to expose at least, The thin film of the organic electroluminescence medium of at least one layer of the part of said exposed 1st display electrode formed upwards respectively, Two or more 2nd display electrodes with which each was formed on the thin film of said organic electroluminescence medium between said septa, two or more conducting wire layers which each is formed on said 2nd display electrode, and elongates from between said septa to the exterior of said image display array area -- since -- said septum It is characterized by having the septum edge which has the width of face which consists of width of face of said septum in the direction which develops to the exterior of said image display array area, and carries out an abbreviation rectangular cross to the expanding direction of said septum size.

[0007]
[Function] Even if according to the organic electroluminescence display panel of this invention a conducting wire layer pattern will shift and a conducting wire layer will be formed ranging over a septum, since a septum has the width of face which serves as size from width of face in the direction which carries out an abbreviation rectangular cross with cathode in a septum edge, the part formed on the cathode which adjoins the part formed on one cathode in one conducting wire layer of this septum end shape is insulated electrically.
[0008] Moreover, in the organic electroluminescence display panel with which cathode is formed in the cathode lower part, since he is trying to combine adjoining septa at the septum edge, even if a conducting wire layer shifts, the short circuit of the cathode which adjoin by part for the bond part of a septum edge can be prevented.
[0009]
[Embodiment of the Invention] The example by this invention is explained to it, referring to a drawing to below. As shown in drawing 3 , the organic electroluminescence display panel of an example is equipped with organic EL device OELE of the plurality [matrix] of a location on the substrate 2. The field where two or more organic EL devices are arranged turns into an image display array area. Each of organic EL device OELE consists of a thin film of the 1st display electrode by which the laminating was carried out to order on the substrate 2, and the organic electroluminescence medium of at least one layer, and the 2nd display electrode. The organic electroluminescence display panel is equipped also with the septum 7 of electric insulation, it passes through between organic EL device OELE(s) which a septum 7 adjoins on a substrate 2, develops, and is formed, and projects, and separates these. A conducting wire layer 11 carries out abbreviation parallel in the expanding direction of a septum 7, is formed on the 2nd display electrode 9, and develops to the exterior of an organic EL device.
[0010] The edge of a septum has the configuration which makes at least one side of the 2nd display electrode 9 which adjoins when a conducting wire layer 11 produces a location gap to an abbreviation perpendicular direction to the expanding direction of a septum 7, as shown in drawing 4 disconnect from a conducting wire layer 11, for example, a T character configuration. That is, as shown in drawing 5 , the septum edge 15 of the septum 7 elongated to the exterior of an image display array area has the width of face b which consists of width of face a of the septum in the direction which carries out an abbreviation rectangular cross to the expanding direction of a septum size. The manufacture approach of the organic electroluminescence display panel of the above-mentioned operation gestalt is explained.
[0011] (The 1st display electrode line formation) The transparence substrates 2, such as glass, are prepared, and as shown in drawing 6 , two or more island-shape transparent electrode 3a which consists of an ingredient of high work functions, such as an indium stannic acid ghost (henceforth ITO), is formed in the principal plane in the shape of a matrix so that it may become an image display array area. Next, as shown in drawing 7 , anode plate bus-line 3b of the metal which connects horizontally these island-shape transparent electrode 3a electrically is formed by vacuum evaporationo etc. Let width of face of an anode plate bus line be smallness rather than the width of face of an island-shape transparent electrode. The 1st display electrode line 3 which consists of this island-shape transparent electrode and an anode plate bus line is mutually formed in parallel by two or more. Thus, the 1st display electrode line 3 is mutually arranged in the shape of [parallel / two or more] a stripe. As for anode plate bus-line construction material, the low metal of resistivity, such as aluminum, Cu, and Au, is used. In addition, except for island-shape transparent electrode 3a, the 1st display electrode line 3 top can also be covered with an insulator layer.
[0012] (Septum formation) Next, as shown in drawing 8 , the septum 7 of two or more electric insulation is formed so that it may elongate perpendicularly to the 1st display electrodes 3a and 3b and each may be located between island-shape transparent electrodes. The septum 7 has the septum edge 15 which has the width of face b which consists of width of face a of the septum in the direction which develops to the exterior of image display array area 1a, and carries out an abbreviation rectangular cross to the expanding direction of a septum size. Each septum edge 15 is formed so that termination only of the equal distance may be elongated and carried out from the 2nd display electrode formed at image display array area 1a, i.e., after. Here, a septum is formed using technique, such as the usual photolithography method, using a photoresist. As for a septum 7, the cross section which consists of an over hang which projects in the direction parallel to a substrate has the configuration of the abbreviation mold for T characters or, and a back taper (reverse isosceles trapezoid) in the body of a septum, and its upper part. Thus, the septum by which some 1st display electrodes, especially a transparent electrode are

made to expose at least, and the whole projects from a substrate is formed.
[0013] The septum edge 15 of a septum 7 is formed so that it may extend outside an image display array area for the 2nd display inter-electrode short circuit prevention formed later, and if the height from the substrate of a septum 7 is height exceeding the thickness of the cathode 9 of the 2nd display electrode formed behind, it is without limit good. Thus, it is formed over the substrate 2 and 1st display electrode line 3 top so that the 1st display electrode line 3 and the septum 7 of electric insulation may cross at right angles, and it is formed so that a septum 7 may make the part, especially island-shape transparent electrode of the 1st display electrode line 3 expose at least among a septum formation process.
[0014] (Luminous layer formation) next, each some electrodes of said 1st display -- an organic electroluminescence medium is deposited upwards and the process which forms the thin film of two or more organic electroluminescence media of at least one layer is explained. The electron hole transporting bed of an organic electroluminescence medium is formed uniformly beforehand. Next, an organic luminous layer is formed and an electronic transporting bed can also be formed at this process. Furthermore, an electron or the impregnation layer of an electron hole can also be formed among these suitable stratum functionale. As shown in drawing 9 , in membrane formation of an organic luminous layer, alignment of the penetration opening 31 of a mask 30 is carried out to the ITO electrode 3 exposed between septa 7, a mask is laid on a septum, and 1st organic electroluminescence (for example, red luminescence) medium 8a is formed in predetermined thickness using the vacuum evaporationo approach. Next, after shifting a mask and carrying out alignment, similarly, a mask is laid on a septum and sequential membrane formation of the 2nd (for example, green luminescence) and the 3rd organic electroluminescence medium (for example, blue luminescence) is carried out at predetermined thickness. Thus, the luminous layer formation process which carries out sequential migration of the mask so that one opening may be arranged on the adjoining 1st display electrode from on [of one] the 1st display electrode is repeated successively. Thus, the thin film of an organic electroluminescence medium is formed of vacuum evaporationo using said mask with said same organic luminous layer. Two or more organic luminous layers which an organic electroluminescence medium is separately juxtaposed on the 1st display electrode, respectively, and emit light in the light of the color of Red R, green G, and Blue B by electrical-potential-difference impression, respectively are formed.
[0015] (The 2nd display electrode formation) On the thin film of an organic electroluminescence medium, as shown in drawing 10 , the cathode of two or more 2nd display electrodes 9 elongated perpendicularly is formed by vacuum evaporationo etc., and a light-emitting part is demarcated in each intersection with said 1st display electrode. The summit and over hang of a septum 7 serve as a roof and eaves to metallic-fumes flow, and since the metal membrane 50 deposited on the summit of a septum 7 and the over hang is separated from the 2nd display electrode 9, they can prevent the short circuit between the 2nd display electrode lines 9. Moreover, as the 2nd display electrode line 9 of two or more cathode by over-hang 7a of a septum is divided by the abbreviation vertical incidence of metallic fumes, it insulates electrically and it is shown in drawing 11 instead of **** Since extent to which a metallic-fumes style turns around over-hang 7a of a septum is smaller than extent around which an organic electroluminescence medium ingredient particle style turns, the organic electroluminescence medium 8 does not produce the short circuit of a flash, cathode 9, and the ITO anode plate 3 from the 2nd display electrode line 9.
[0016] Thus, the part of the organic electroluminescence medium by which it faced across the 1st and 2nd display electrode line by crossing corresponds to a light-emitting part. In the organic electroluminescence display panel of this example, a substrate and the 1st display electrode are transparent, and luminescence is emitted from a substrate side. On the contrary, the 2nd display electrode can be constituted from a transparent material, and luminescence can also be made to emit from the 2nd display electrode side in the organic electroluminescence display panel of other examples.
[0017] (Conducting wire layer formation) Next, as shown in drawing 3 , the conducting wire layer 11 elongated from between septa 7 to the exterior of image display array area 1a is formed on the 2nd display electrode 9 with the vacuum deposition using a mask etc. Here, since the septum edge has the configuration which makes one side of the adjoining 2nd display electrode 9 disconnect from a conducting wire layer 11, for example, a T character configuration, as shown in drawing 4 when a conducting wire layer 11 produces a location gap to an abbreviation perpendicular direction to the expanding direction of a septum 7, the short circuit between the 2nd display electrodes 9 is prevented, and the positioning-accuracy allowed value of the pattern of a conducting wire layer 11 is eased.
[0018] Thus, after forming a conducting wire layer on the 2nd display electrode, it moisture-proof-

processes, and closes and a full color organic electroluminescence display panel is obtained. As shown in drawing 12 , the organic electroluminescence display panel has image display array area 1a which consists of plurality of the luminescence pixel 1 which it is arranged in the shape of a matrix on a substrate 2, and each becomes from the light-emitting part of Red R, green G, and Blue B. A light-emitting part is formed on transparent electrode 3a of the crossing part of the 1st display electrode line 3 and the vertical 2nd display electrode line 9.

[0019] (Gestalt of operation of other septum edges) As shown in drawing 13 , the septum edge 15 has the configuration symmetrical with abbreviation shown in drawing 33 , the configuration, for example, drawing 14 , which has the half width b0 of an equal distance toward both sides from the center line of the extension direction of a septum -, and the thing desirable [the edge] which has the unsymmetrical configuration as shown in drawing 34 - drawing 36 while not only a T character configuration but the septum edge 15 has the width of face b which consists of width of face a of a septum size. What has the configuration symmetrical with abbreviation is desirable. Furthermore, as shown in drawing 37 and drawing 38 , the septum edge 15 may have the half width b1 and b2 (b1>b2=0 or b1>b2> 0) of distance which is different toward both sides from the center line of the extension direction of a septum. According to these operation gestalten, in the membrane formation process of a conducting wire layer 11, when fixed directivity is in location gap of a mask pattern, it is effective in the width of face of the formed conducting wire layer not becoming thin.

[0020] Moreover, with other operation gestalten, as shown in drawing 39 , the distance from which the adjoining septum edge 15 differs from the 2nd display electrode 9 is formed so that it may get used. That is, the septum edge 15 of a septum 7 is arranged, respectively so that the difference C of the distance from the 2nd display electrode 9 of the adjoining septum edge 15 may exceed zero. The distance d2 which consists of distance d1 between the septum edges 15 where it adjoins by this when the distance from the 2nd display electrode 9 of the adjoining septum edge 15 is equal size is securable. Therefore, when a conducting wire layer 11 is formed without a location gap, it is eased that the width of face of a conducting wire layer becomes thin.

[0021] Even if it is the case that the distance from the 2nd display electrode 9 of the adjoining septum edge 15 is equal according to other operation gestalten If it has 2nd piece partial 15a which has the width of face which distance C which is different from the 2nd display electrode 9 compared with the location of the septum edge 15 is formed in the location which got used, and the septum edge 15 becomes from the width of face of a septum size as shown in drawing 40 Like the above, when a conducting wire layer 11 is formed without a location gap, the effectiveness that it is eased that the width of face of a conducting wire layer 11 becomes thin is acquired.

[0022] Other configurations of the septum edge 15 of having 2nd piece partial 15a shown in drawing 40 are shown in drawing 41 - drawing 47 . By these cases as well as the above, when a conducting wire layer 11 is formed without a location gap, the effectiveness that it is eased that the width of face of a conducting wire layer 11 becomes thin is acquired. being the further -- others -- according to the operation gestalt, as shown in drawing 48 , the organic electroluminescence display panel of the same configuration as the above-mentioned operation gestalt may also be offered except having cathode bus-line 9a which works as some 2nd display electrodes formed between the thin film 8 of an organic electroluminescence medium, and the 2nd display electrode 9 so that it may connect with the 2nd display electrode 9 between septa 7.

[0023] Furthermore, with this operation gestalt, as shown in drawing 48 , the adjoining septum edge 15 can also be set to combined septum edge 15a which was unified. As shown in drawing 49 , even when a conducting wire layer 11 produces a location gap to an abbreviation perpendicular direction to the expanding direction of a septum 7 according to this, the adjoining 2nd display electrode 9 can be made to disconnect thoroughly from the adjoining conducting wire layer 11.

[0024] In addition, if structure of the organic electroluminescence medium 8 of the gestalt of this operation is made into not 3 sets of RGB but 1 set, or 2 sets, it is clear that a monochromatic specification panel and a multicolor display panel are realizable, respectively. Moreover, island-shape transparent electrode 3a and anode plate bus-line 3b can be summarized to one, and it can also consider as a stripe-like transparent electrode. Moreover, a transparent electrode can be formed in the shape of a stripe, and anode plate bus-line 3a can also be omitted.

[Translation done.]

DESCRIPTION OF DRAWINGS

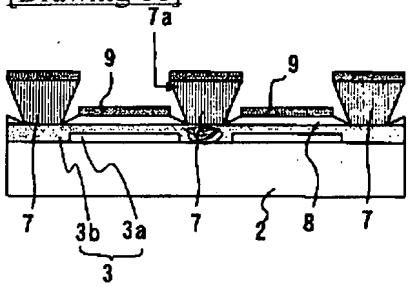
[Brief Description of the Drawings]
[Drawing 1] The outline part notching amplification partial perspective view of an organic electroluminescence display panel.
[Drawing 2] The outline part notching amplification partial perspective view of an organic electroluminescence display panel.
[Drawing 3] The outline part notching amplification partial perspective view of the organic electroluminescence display panel by this invention.
[Drawing 4] The outline part notching amplification partial perspective view of the organic electroluminescence display panel by this invention.
[Drawing 5] The outline part notching amplification part plan of the organic electroluminescence display panel by this invention.
[Drawing 6] The outline partial perspective view of the substrate in the organic electroluminescence display-panel production process of the example by this invention.
[Drawing 7] The outline partial perspective view of the substrate in the organic electroluminescence display-panel production process of the example by this invention.
[Drawing 8] The outline partial perspective view of the substrate in the organic electroluminescence display-panel production process of the example by this invention.
[Drawing 9] The outline partial perspective view of the substrate in the organic electroluminescence display-panel production process of the example by this invention.
[Drawing 10] The outline partial perspective view of the substrate in the organic electroluminescence display-panel production process of the example by this invention.
[Drawing 11] The outline partial expanded sectional view of the substrate in the organic electroluminescence display-panel production process of the example by this invention.
[Drawing 12] The outline part notching amplification part plan of the organic electroluminescence display panel by this invention seen from the substrate side.
[Drawing 13] The septum in the organic electroluminescence display panel of the example by this invention, and the outline part plan of the edge.
[Drawing 14] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 15] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 16] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 17] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 18] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 19] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 20] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 21] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 22] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 23] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 24] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 25] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 26] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 27] The septum in the organic electroluminescence display panel of other examples by this

invention, and the outline part plan of the edge.
[Drawing 28] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 29] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 30] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 31] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 32] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 33] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 34] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 35] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 36] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 37] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 38] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 39] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 40] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 41] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 42] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 43] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 44] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 45] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 46] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 47] The septum in the organic electroluminescence display panel of other examples by this invention, and the outline part plan of the edge.
[Drawing 48] The outline part notching amplification partial perspective view of the organic electroluminescence display panel of other examples by this invention.
[Drawing 49] The outline part notching amplification partial perspective view of the organic electroluminescence display panel of other examples by this invention.
[Description of Notations]
1 Luminescence Pixel
2 Substrate
3 1st Display Electrode Line
3a Island-shape transparent electrode
3b Anode plate bus line
7 Septum
7a Over hang
8 Organic Electroluminescence Medium
9 2nd Display Electrode Line
15 Septum Edge

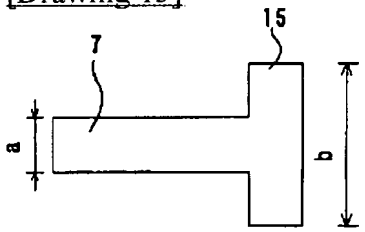
[Translation done.]

DRAWINGS

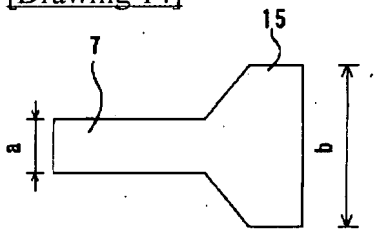
[Drawing 11]



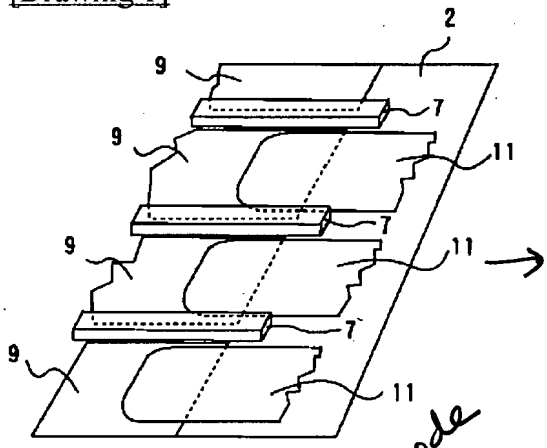
[Drawing 13]



[Drawing 14]

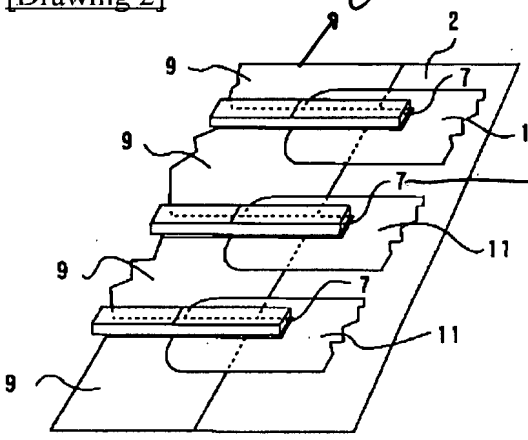


[Drawing 1]



→ Prior Art

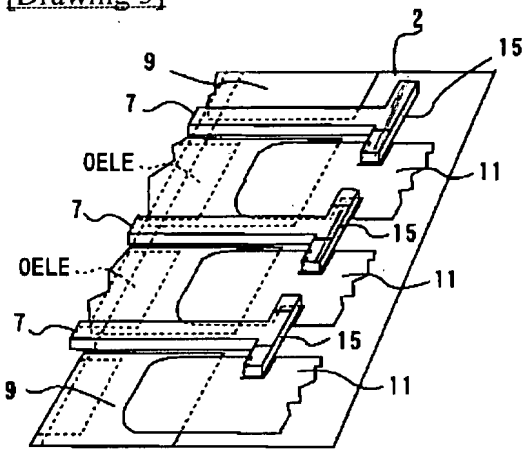
[Drawing 2]



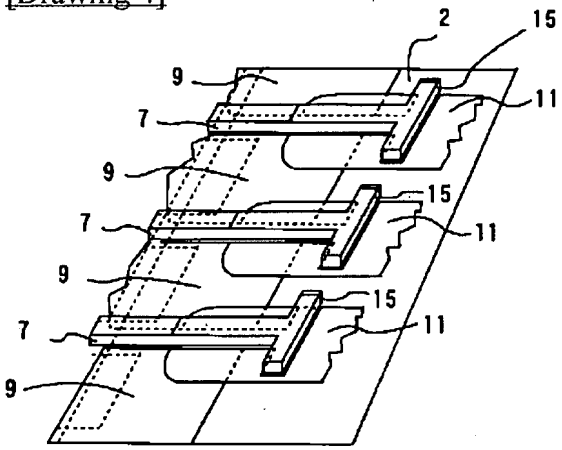
→ conductive wire layers

→ barrier (~~bta~~ bulkhead)

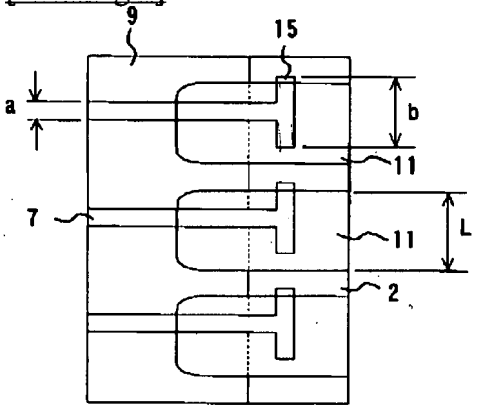
[Drawing 3]



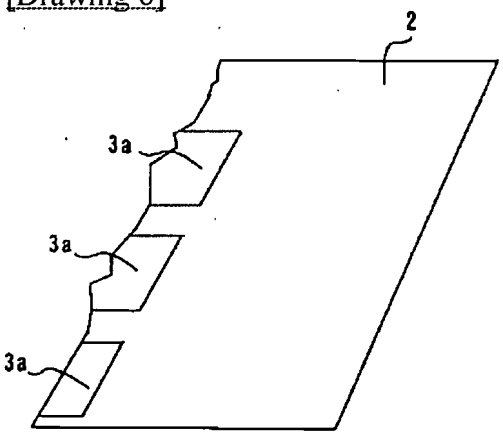
[Drawing 4]



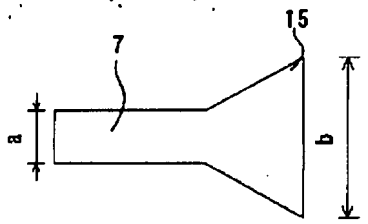
[Drawing 5]



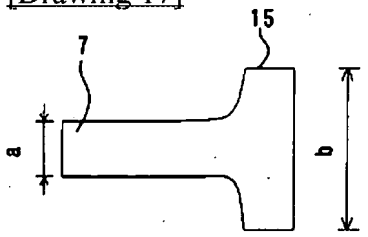
[Drawing 6]



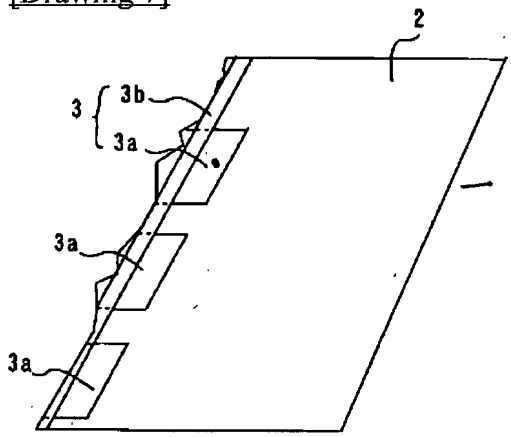
[Drawing 16]



[Drawing 17]

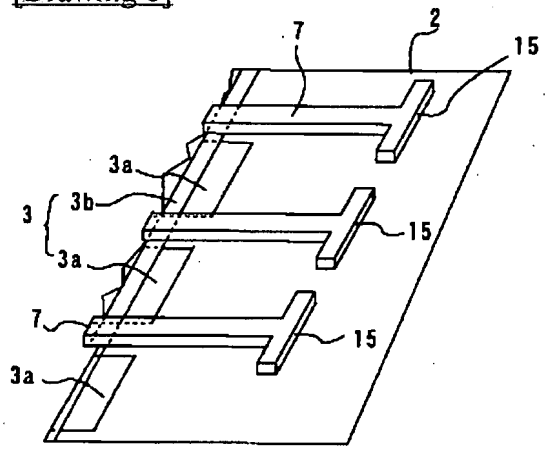


[Drawing 7]

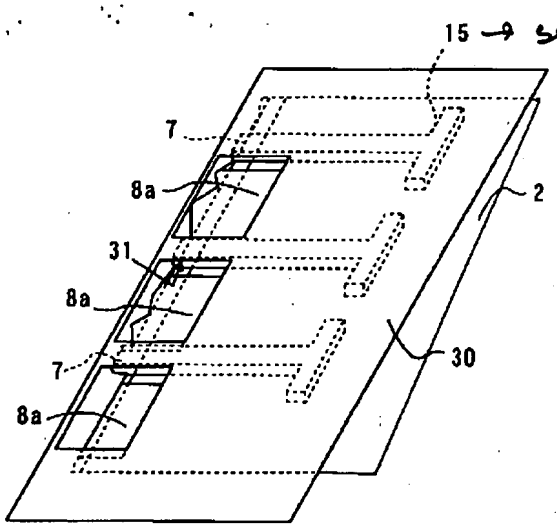


3A → ITO strip.
a supplemental electrode 3b,

[Drawing 8]



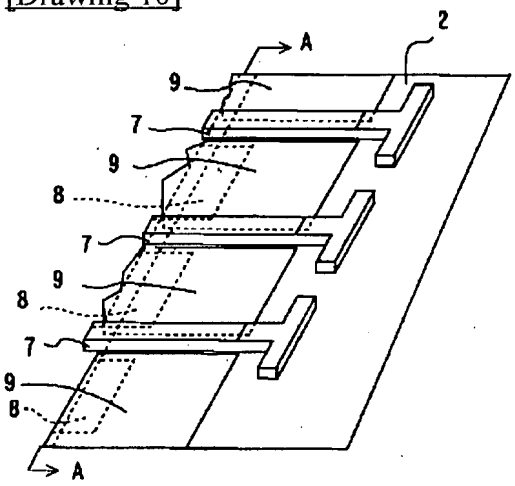
[Drawing 9]



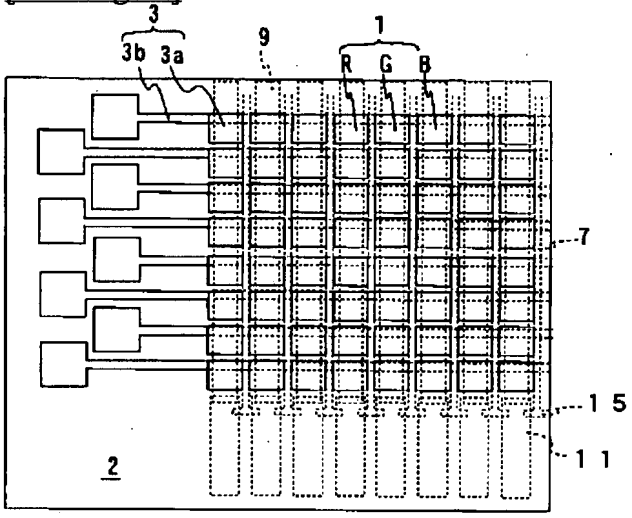
15 → second supplement bulkhead coupled to the bulk head.

8A → organic EL layer

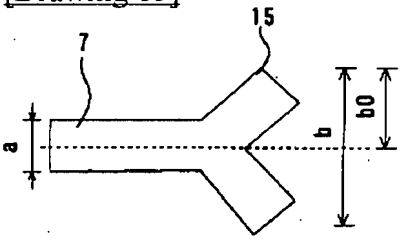
[Drawing 10]



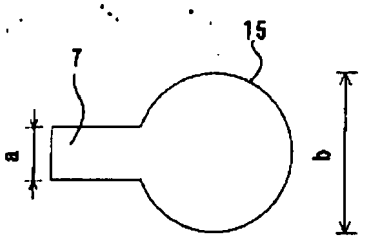
[Drawing 12]



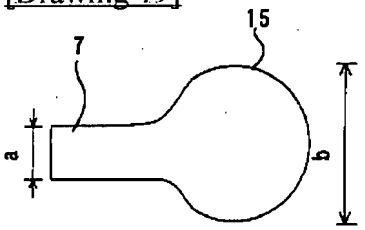
[Drawing 15]



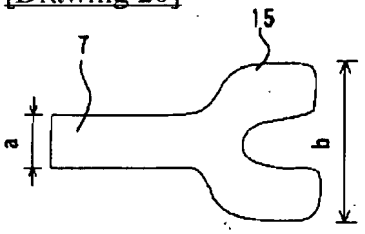
[Drawing 18]



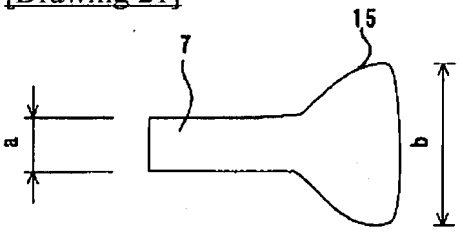
[Drawing 19]



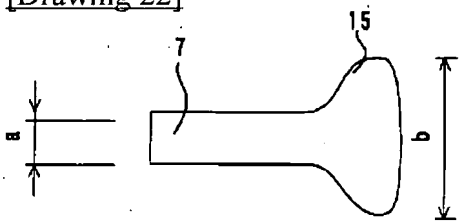
[Drawing 20]



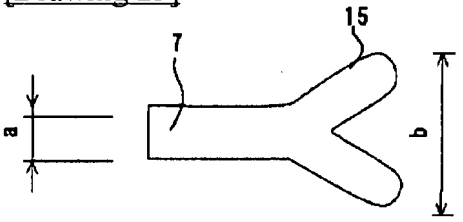
[Drawing 21]



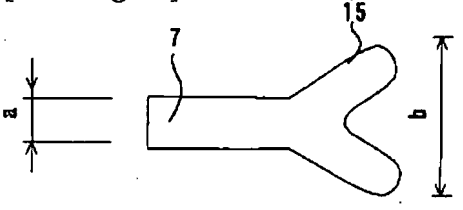
[Drawing 22]



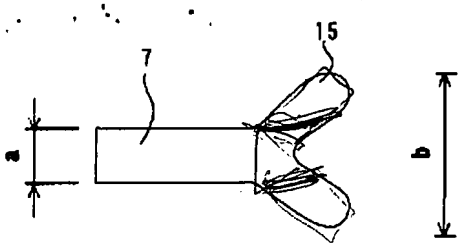
[Drawing 23]



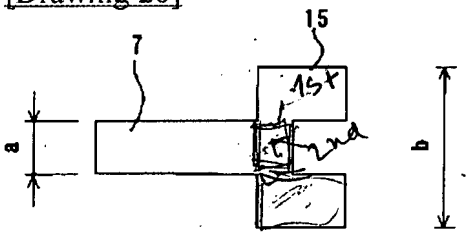
[Drawing 24]

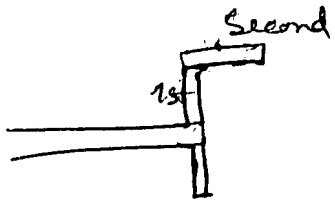


[Drawing 25]

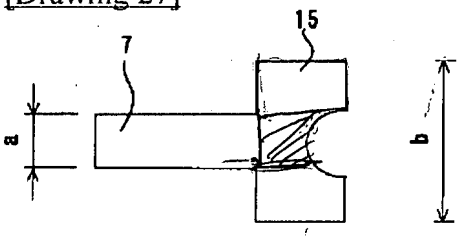


[Drawing 26]

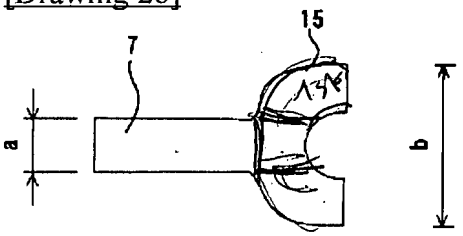




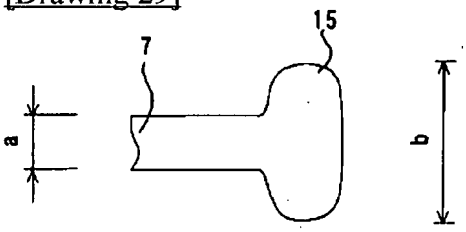
[Drawing 27]



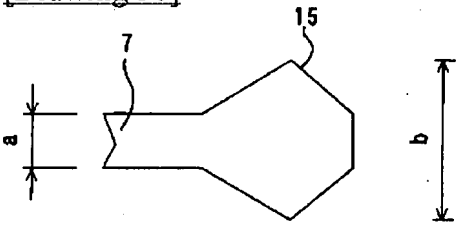
[Drawing 28]



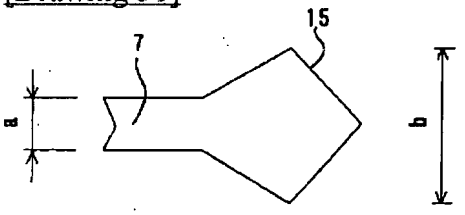
[Drawing 29]



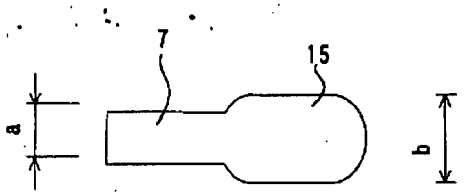
[Drawing 30]



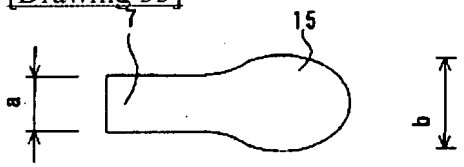
[Drawing 31]



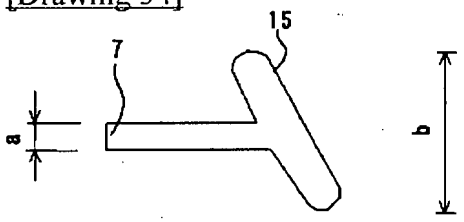
[Drawing 32]



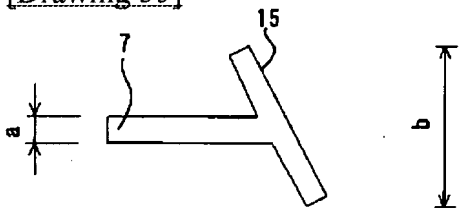
[Drawing 33]



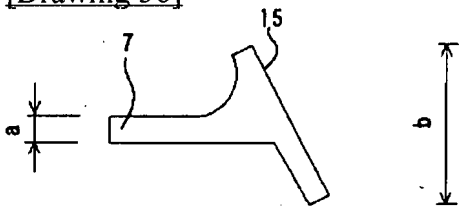
[Drawing 34]



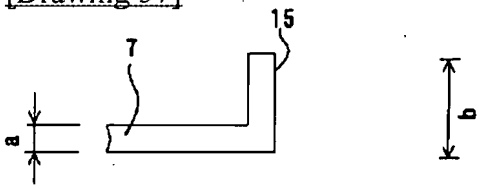
[Drawing 35]



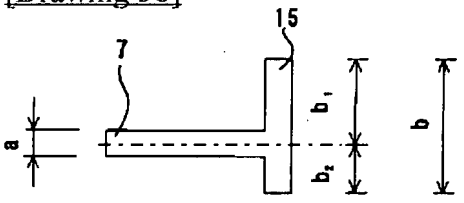
[Drawing 36]



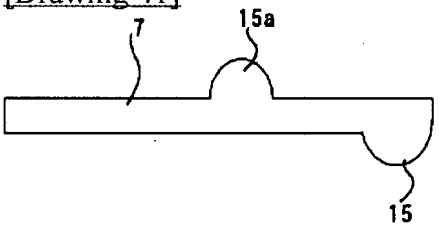
[Drawing 37]



[Drawing 38]



[Drawing 41]



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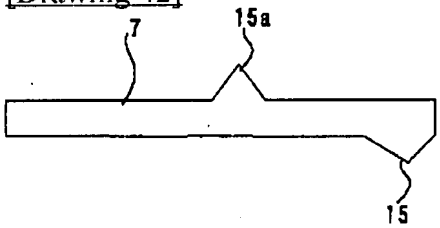
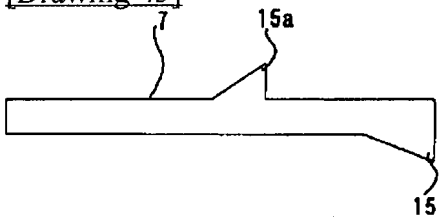
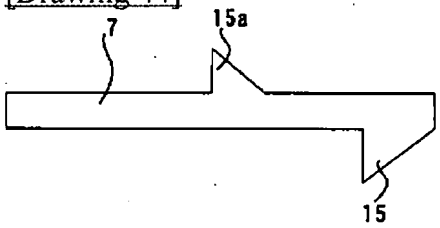


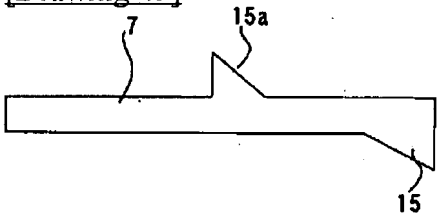
[Drawing 43]



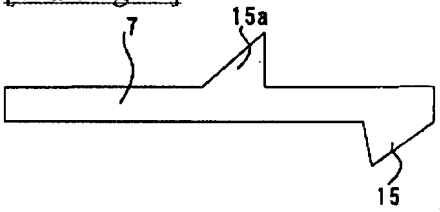
[Drawing 44]



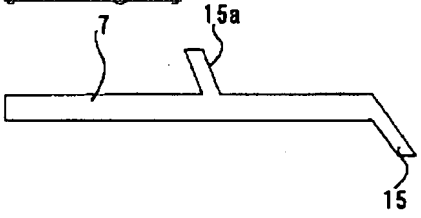
[Drawing 45]



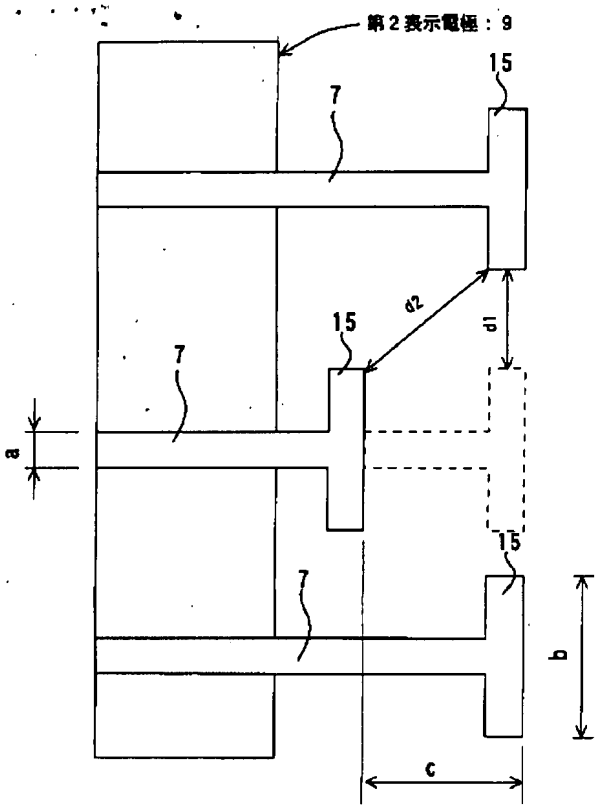
[Drawing 46]



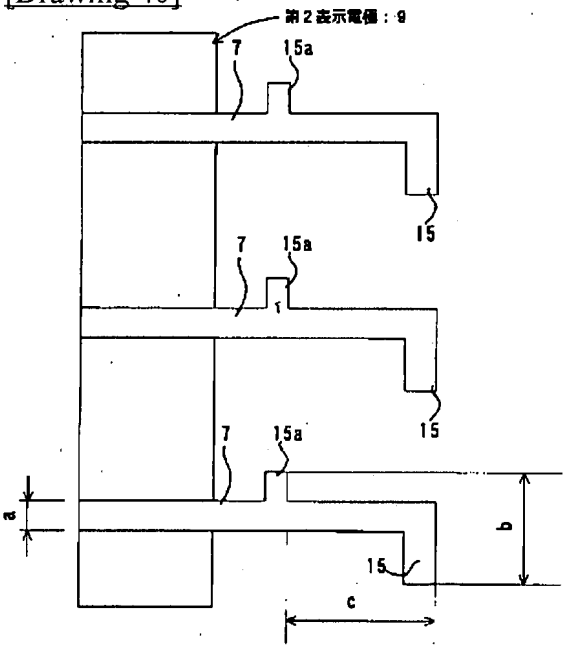
[Drawing 47]



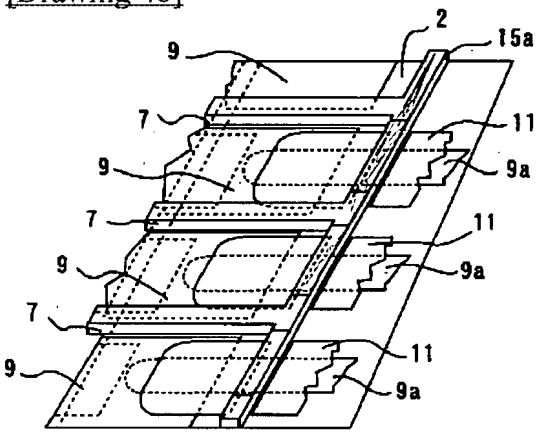
[Drawing 39]



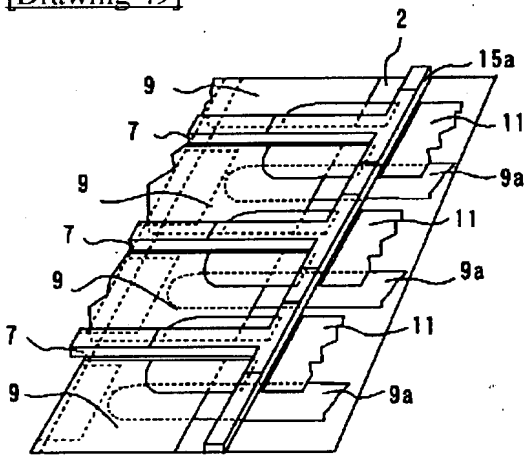
[Drawing 40]



[Drawing 48]



[Drawing 49]



[Translation done.]